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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,713	08/25/2000	Harry T. French	FRENCH 6-2	7110

47396 7590 07/27/2005

HITT GAINES, PC
AGERE SYSTEMS INC.
PO BOX 832570
RICHARDSON, TX 75083

EXAMINER	
HAN, CLEMENCE S	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/649,713	FRENCH ET AL.	
	Examiner	Art Unit	
	Clemence Han	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-10,12-19,21,22,25,26,28,29,32,33,35-38,41 and 44-48* is/are rejected.

7)☒ Claim(s) *2,11,20,23,24,27,30,31,34,39,40,42,43,49 and 50* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/04/01, 05/23/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claim 1, 3-7, 10 and 12-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Oskouy (US 5,982,772).

Regarding to claim 1 and 10, Oskouy teaches for use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface, a messaging system for facilitating communications between said master device and said slave device, comprising: a channel level detector that reads a level of a first-in, first-out (FIFO) buffer 28 of said slave device 12 and compares said level to a threshold, said slave device providing a network interface 40 to said switching network 10 for said master device 48; and an event driven message generator that issues an event driven message 118 (Figure 3 and 4a) over said local interface 38 to said master device when said level reaches said threshold (Column 6 Line 60-63).

Regarding to claim 3 and 12, Oskouy teaches packets transmitted to said master device 48 are packets received by said slave device 12 over said switching network 10 (Column 3 Line 33-36).

Regarding to claim 4 and 13, Oskouy teaches said switching network 10 is an asynchronous transfer mode (ATM) network (Figure 1).

Regarding to claim 5 and 14, Oskouy teaches said threshold is user selectable (Column 8 Line 14-18).

Regarding to claim 6 and 15, Oskouy teaches said level indicates a number of packets remaining in said FIFO buffer, said event driven message indicating to said master device as to when said FIFO buffer may underrun (Column 8 Line 21-26).

Regarding to claim 7 and 16, Oskouy teaches said master device transmits additional packets to said slave device based on said event driven message (Column 6 Line 60 – Column 7 Line 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 8, 9, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oskouy in view of Iliadis (US Patent 5,995,486).

Regarding to claim 8 and 17, Oskouy teaches said level indicates a number of packets remaining in said FIFO buffer, said event driven message indicating to said master device as to when said FIFO buffer may underrun (Column 8 Line 21-26). Oskouy, however, does not teach the case of overrun. Iliadis teaches the case of overrun (Column 5 Line 1-7, Figure 2). It would have been obvious to one skilled in the art to modify Oskouy to generate message when overrun occurs as taught by Iliadis in order to control flow (Column 4 Line 61-65).

Regarding to claim 9 and 18, Iliadis teaches said master device suspends transmission of packets to said slave device based on said event driven message (Column 4 Line 61-65).

5. Claim 19, 21, 22, 25, 26, 28, 29, 32, 33, 35-37, 41 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oskouy in view of Bell, Jr. et al. (US Patent 6,601,105).

Regarding to claim 19 and 26, Oskouy teaches for use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface, a messaging system for facilitating communications between said master device and

said slave device, comprising: a channel level detector that determines storage level of a channel associated with said slave device, said slave device providing a network interface to said switching network for said master device; and a message generator that issues to said master device over said local interface a message indicating said storage levels as discussed in the rejection of claim 1. Oskouy, however, does not teach an aggregate level detector that determines storage levels of a plurality of channels associated with said slave device and a periodic message generator that periodically issues to said master device a periodic message indicating said storage levels. Bell, Jr. teaches an aggregate level detector 18 that determines storage levels of a plurality of channels associated with said slave device (Column 4 Line 35-38) and a periodic message generator 18 that periodically issues to said master device a periodic message indicating said storage levels (Column 3 Line 66-67). It would have been obvious to one skilled in the art to modify Oskouy have an aggregate level detector and periodic message generator as taught by Bell, Jr. in order to use plurality of buffers more efficiently.

Regarding to claim 21 and 28, Oskouy teaches packets transmitted to said master device 48 are packets received by said slave device 12 over said switching network 10 (Column 3 Line 33-36).

Regarding to claim 22 and 29, Oskouy teaches said switching network 10 is an asynchronous transfer mode (ATM) network (Figure 1).

Regarding to claim 25 and 32, Oskouy teaches said master device transmits additional packets to said slave device based on said message (Column 6 Line 60 – Column 7 Line 2).

Regarding to claim 33 and 41, Oskouy teaches for use with a packet transport system associated with a switching network and having a master device and a slave device that transmits packets therebetween over a local interface, a messaging system for facilitating communications between said master device and said slave device, comprising: an event driven messaging subsystem, including: a channel level detector that reads a level of a first-in, first-out (FIFO) buffer 28 of said slave device 12 and compares said level to a threshold, said slave device providing a network interface 40 to said switching network 10 for said master device 48, and an event driven message generator that issues an event driven message 118 (Figure 3 and 4a) to said master device when said level reaches said threshold (Column 6 Line 60-63); and said master device controlling transmission of packets to said slave device based on at least one of said event driven message and said periodic message (Column 6 Line 60 – Column 7 Line 2). Oskouy, however, does not teach an aggregate level detector that determines storage levels

of a plurality of channels associated with said slave device and a periodic message generator that periodically issues to said master device a periodic message indicating said storage levels. Bell, Jr. teaches an aggregate level detector 18 that determines storage levels of a plurality of channels associated with said slave device (Column 4 Line 35-38) and a periodic message generator 18 that periodically issues to said master device a periodic message indicating said storage levels (Column 3 Line 66-67). It would have been obvious to one skilled in the art to modify Oskouy have an aggregate level detector and periodic message generator as taught by Bell, Jr. in order to use plurality of buffers more efficiently.

Regarding to claim 35 and 44, Oskouy teaches packets transmitted to said master device 48 are packets received by said slave device 12 over said switching network 10 (Column 3 Line 33-36).

Regarding to claim 36 and 46, Oskouy teaches said switching network 10 is an asynchronous transfer mode (ATM) network (Figure 1).

Regarding to claim 37 and 47, Oskouy teaches said master device transmits additional packets to said slave device based on at least one of said event driven message and said periodic message (Column 6 Line 60 – Column 7 Line 2).

Regarding to claim 45, Oskouy teaches transmitting said message 118 out of band.

6. Claim 38 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oskouy in view of Bell, Jr. et al. and further in view of Iliadis.

Regarding to claim 38 and 48, Oskouy teaches said master device transmits additional packets to said slave device based on at least one of said event driven message and said periodic message (Column 6 Line 60 – Column 7 Line 2). Oskouy in view of Bell, Jr. et al., however, does not teach suspending transmission of packet in the case of overrun. Iliadis teaches suspending transmission of packet in the case of overrun (Column 5 Line 1-7, Figure 2). It would have been obvious to one skilled in the art to modify Oskouy in view of Bell, Jr. et al. to generate message when overrun occurs as taught by Iliadis in order to control flow (Column 4 Line 61-65).

Allowable Subject Matter

7. Claim 2, 11, 20, 23, 24, 27, 30, 31, 34, 39, 40, 42, 43, 49 and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments with respect to claim 1-50 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H.

Clemence Han
Examiner
Art Unit 2665

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600